

# City of Birmingham Retirement and Relief System

Actuarial Valuation and Review as of  
July 1, 2014





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*October 2, 2015*

*Board of Managers*

*City of Birmingham Retirement and Relief System*

*710 North 20th Street, GA 100 City Hall*

*Birmingham, Alabama 35203-2216*

*Dear Board Members:*

*We are pleased to submit this Actuarial Valuation and Review as of July 1, 2014. It summarizes the actuarial data used in the valuation, analyzes the preceding year's experience, and establishes the funding requirements for the 2014-2015 fiscal year.*

*This report was prepared in accordance with generally accepted actuarial principles and practices at the request of the Board to assist in administering the Retirement System. The census information on which our calculations were based was prepared by the City and the financial information was provided by the City's Finance Department. That assistance is gratefully acknowledged. Segal Consulting does not audit the data provided; the accuracy and comprehensiveness of the data is the responsibility of those supplying it. To the extent we can, however, Segal Consulting does review the data for reasonableness and consistency. Based on our review of the data, we have no reason to doubt the substantial accuracy of the information on which we have based this report and we have no reason to believe there are facts or circumstances that would affect the validity of these results.*

*The measurements shown in this actuarial valuation may not be applicable for other purposes. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the smoothing of investment gains and losses); and changes in plan provisions or applicable law.*


*The actuarial calculations were directed under the supervision of Deborah K. Brigham, FCA, ASA, MAAA, Enrolled Actuary. We are members of the American Academy of Actuaries and we meet the Qualification Standards to render the*

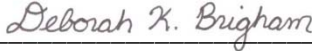
*actuarial opinion herein. To the best of our knowledge, the information supplied in this actuarial valuation is complete and accurate. Further, in our opinion, the assumptions as approved by the Board of Managers are reasonably related to the experience of and the expectations for the System.*

*We look forward to reviewing this report at your next meeting and to answering any questions.*

*Sincerely,*

*Segal Consulting, a Member of The Segal Group, Inc.*

By:   
\_\_\_\_\_  
*Leon F. (Rocky) Joyner, Jr., FCA, ASA, MAAA, EA*  
*Vice President and Consulting Actuary*

  
\_\_\_\_\_  
*Deborah K. Brigham, FCA, ASA, MAAA, EA*  
*Vice President and Actuary*

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## SECTION 1: Valuation Summary for the City of Birmingham Retirement and Relief System

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### Purpose

This report has been prepared by Segal Consulting to present a valuation of the City of Birmingham Retirement and Relief System as of July 1, 2014. The valuation was performed to determine whether the assets and contributions are sufficient to provide the prescribed benefits. The contribution requirements presented in this report are based on:

- The benefit provisions of the Pension Plan, as administered by the Board of Managers;
- The characteristics of covered active participants, inactive vested participants, and retired participants and beneficiaries as of July 1, 2014, provided by the City;
- The assets of the Plan as of June 30, 2014, provided by the City's Finance Department;
- Economic assumptions regarding future salary increases and investment earnings; and
- Other actuarial assumptions, regarding employee terminations, retirement, death, etc.

### Significant Issues in Valuation Year

1. The recommended contribution for the upcoming year is \$42,832,673, an increase of \$407,739 from last year. The contribution as a percentage of payroll decreased from 23.23% of pay to 22.39% of pay, based on a 30-year level percent-of-pay amortization of the unfunded actuarial accrued liability. This decrease in percentage occurred because the actual payroll grew by more than the 3% that was assumed.
2. For the plan year beginning July 1, 2015, both the City and members will begin increased contributions of 7.00% of pay each, up from 6.50%. The combined total of 14.00% of payroll results in an annual deficit of 8.39% when compared to the recommended contribution of 22.39%. The City is ultimately responsible for Plan funding. If employee contributions remain at their current level, the City's share is 15.39% of pay.
3. The normal cost, for benefits and expenses allocated to the current year, is 12.45% of pay, which is fully covered by the 14.00% ultimate contribution rate. However, the unfunded liability is not being amortized by the remaining 1.55% of pay. **The unfunded liability will continue to grow unless the contribution rates are increased, plan provisions are changed, or there are significant gains from investments or other sources.**

## SECTION 1: Valuation Summary for the City of Birmingham Retirement and Relief System

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4. The Schedule of Funding Progress, provided in Exhibit III of Section 4, shows that the funded ratio is 74.80% as of July 1, 2014. A decade ago the System was over 95% funded.
5. The investment rate of return on an actuarial basis for the year ended June 30, 2014 was 12.02%. Since the rate of return was greater than the assumed rate of 7.00% per year, there was an actuarial investment gain amounting to \$43,484,694. The rate of return on a market basis was 15.85%. As of the valuation date, the smoothed actuarial value of assets is equal to 91.5% of market value, and there are deferred gains amounting to over \$87.5 million that will be recognized over the next four years. For informational purposes, if the deferred gains were recognized immediately and the recommended contribution was calculated using market value, the contribution would be 19.79% of pay rather than 22.39%. The funded ratio on a market value basis is 81.73%.
6. The actuarial valuation report as of July 1, 2014 is based on financial information as of June 30, 2014. Changes in the value of assets subsequent to that date are not reflected. Unfavorable asset experience will increase the actuarial cost of the Plan, while favorable experience will decrease the actuarial cost of the Plan.
7. This valuation report is being released much later in the year than normal, because the City transitioned to a new payroll and data system and had difficulty providing the participant information required for Segal to complete our calculations. Segal actuaries invested a significant amount of time working with City staff to obtain all of the necessary data. Based on our review, we have no reason to doubt the substantial accuracy of the information on which we have based this report. However, we note that nearly 40% of active employees in the System had salaries that differed from the prior year by more than 10%. This was reviewed for accuracy with City staff.
8. GASB has released two new statements, Statement No. 67, *Financial Reporting for Pension Plans*, and Statement No. 68, *Accounting and Financial Reporting for Pensions*. On September 18, 2015, Segal released the required disclosures as of June 30, 2015 for the City. Copies are included as Section 5 of this valuation.
9. There have been no assumption or plan changes since last year. The System is due for another five-year experience study prior to the completion of the next valuation. The most recent study covered the period July 1, 2005 through June 30, 2010.

**SECTION 1: Valuation Summary for the City of Birmingham Retirement and Relief System**

**Summary of Key Valuation Results**

	<b>2014</b>	<b>2013</b>
<b>Contributions for plan year beginning July 1:</b>		
Recommended	\$42,832,673	\$42,424,934
Recommended contribution as a percentage of payroll	22.39%	23.23%
Actual contributions (employer and employee)	--	26,023,855
<b>Funding elements for plan year beginning July 1:</b>		
Normal cost, including administrative expenses	\$23,823,180	\$22,878,193
Market value of assets	1,032,760,391	935,111,258*
Actuarial value of assets	945,245,264	888,209,730
Actuarial accrued liability	1,263,665,128	1,216,684,458
Unfunded actuarial accrued liability	318,419,864	328,474,728
Funded ratio – Actuarial basis	74.80%	73.00%
Funded ratio – Market basis	81.73%	76.86%
<b>Demographic data for plan year beginning July 1:</b>		
Number of retired participants and beneficiaries	2,897	2,834
Number of vested former participants**	303	283
Number of active participants	3,889	3,901
Total payroll	\$191,299,778	\$182,634,179
Average payroll	49,190	46,817

\*As of June 30, 2013, there was a contribution balance of \$888,918 for active fire and police employees with more than 30 years of service, which was understood to be a pending transfer from the Supplemental System. Segal Consulting adjusted the market value of assets to account for this pending transfer. This adjustment was reversed as of June 30, 2014, as the transfer was within the Supplemental System accounts, and not to the Retirement and Relief System.

\*\*Includes future pensioners currently receiving benefits from the Supplemental System.



## SECTION 2: Valuation Results for the City of Birmingham Retirement and Relief System

### A. PARTICIPANT DATA

The Actuarial Valuation and Review considers the number and demographic characteristics of covered participants, including active participants, vested terminated participants, retired participants and beneficiaries.

This section presents a summary of significant statistical data on these participant groups.

More detailed information for this valuation year and the preceding valuation can be found in Section 3, Exhibits A, B, and C.

*A historical perspective of how the participant population has changed over the past ten valuations can be seen in this chart.*

**CHART 1**  
**Participant Population: 2005 – 2014**

Year Ended June 30	Active Participants	Vested Terminated Participants*	Retired Participants and Beneficiaries	Ratio of Non-Actives to Actives
2005	3,802	231	2,239	0.65
2006	3,782	204	2,255	0.65
2007	3,760	211	2,352	0.68
2008	3,782	205	2,464	0.71
2009	4,017	211	2,516	0.68
2010	4,073	232	2,555	0.68
2011	3,807	246	2,803	0.80
2012	3,907	250	2,802	0.78
2013	3,901	283	2,834	0.80
2014	3,889	303	2,897	0.82

*\*Includes future pensioners currently receiving benefits from the Supplemental System.*

**SECTION 2: Valuation Results for the City of Birmingham Retirement and Relief System**

**Active Participants**

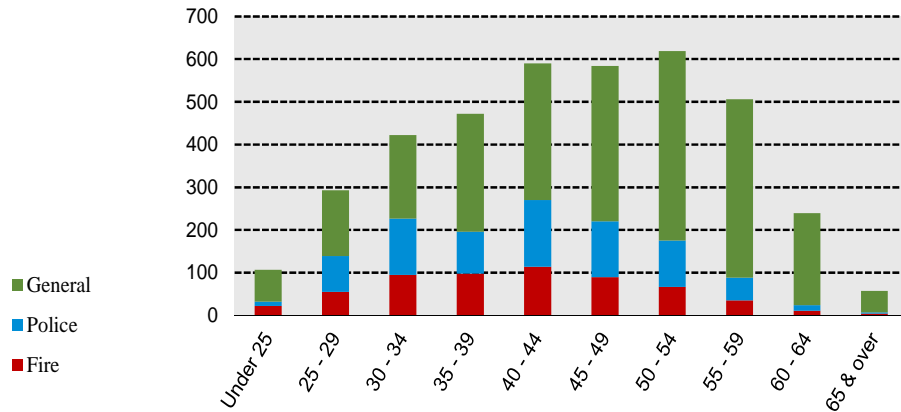
Plan costs are affected by the age, years of service and payroll of active participants. In this year's valuation, there were 3,889 active participants with an average age of 45.0, average years of service of 11.9 years and average payroll of \$49,190. The 3,901 active participants in the prior valuation had an average age of 45.0, average service of 12.0 years and average payroll of \$46,817.

**Inactive Participants**

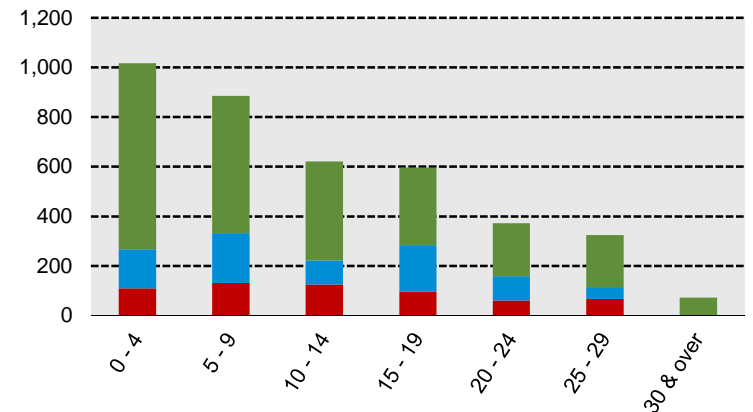
In this year's valuation, there were 303 participants with a vested right to a deferred or immediate vested benefit. This includes 277 individuals currently receiving benefits from the Firemen's and Policemen's Supplemental Pension System.

*These graphs show a distribution of active participants by age and by years of service.*

**CHART 2**  
Distribution of Active Participants by Age as of June 30, 2014



**CHART 3**  
Distribution of Active Participants by Years of Service as of June 30, 2014



**SECTION 2: Valuation Results for the City of Birmingham Retirement and Relief System**

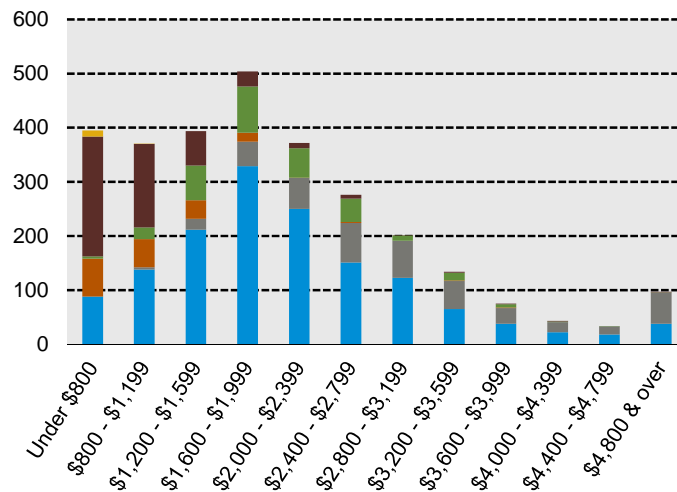
**Retired Participants and Beneficiaries**

As of June 30, 2014, 2,394 retired participants and 503 beneficiaries were receiving total monthly benefits of \$5,862,354. For comparison, in the previous valuation, there were 2,339 retired participants and 495 beneficiaries receiving monthly benefits of \$5,599,079.

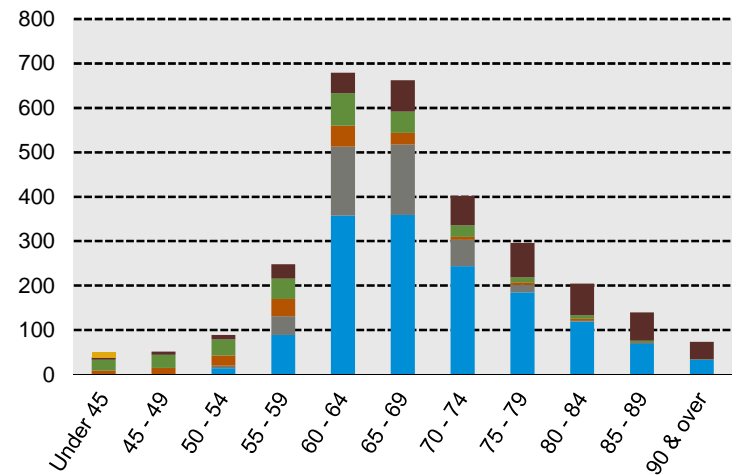
*These graphs show a distribution of the current retired participants and beneficiaries based on their monthly amount and age, by type of pension.*

- Minor
- Spouse
- Extraordinary Disability
- Disability
- DROP/VRIP
- Normal/Early

**CHART 4**  
**Distribution of Retired Participants and Beneficiaries by Type and by Monthly Amount as of June 30, 2014**



**CHART 5**  
**Distribution of Retired Participants and Beneficiaries by Type and by Age as of June 30, 2014**



**SECTION 2: Valuation Results for the City of Birmingham Retirement and Relief System**

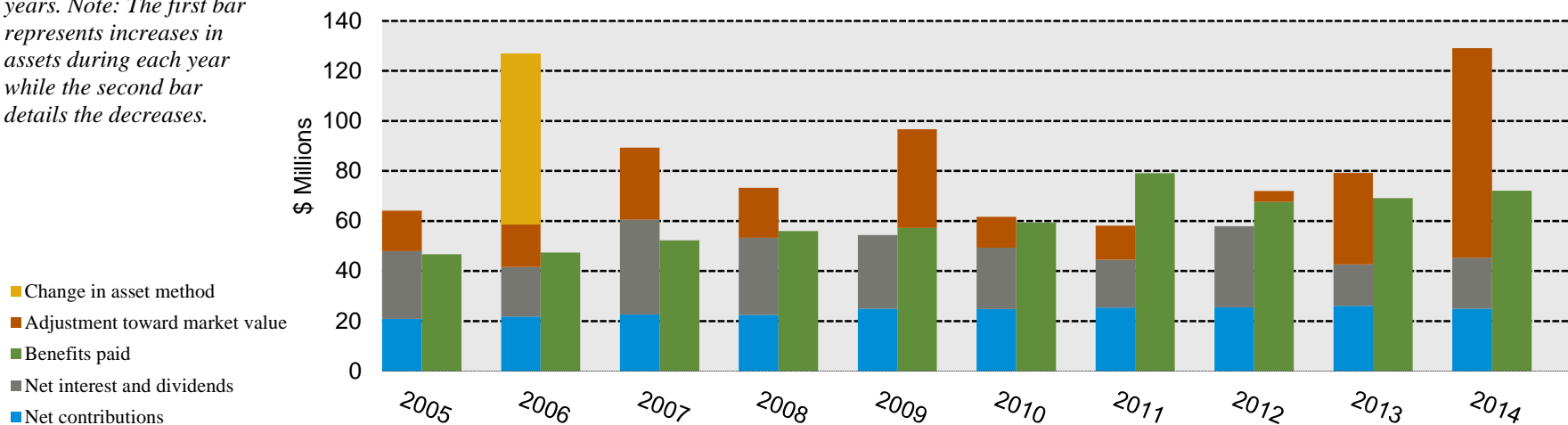
**B. FINANCIAL INFORMATION**

Retirement plan funding anticipates that, over the long term, both contributions (less administrative expenses) and net investment earnings (less investment fees) will be needed to cover benefit payments.

Retirement plan assets change as a result of the net impact of these income and expense components. Additional financial information, including a summary of these transactions for the valuation year, is presented in Section 3, Exhibits D, E and F.

*The chart depicts the components of changes in the actuarial value of assets over the last ten years. Note: The first bar represents increases in assets during each year while the second bar details the decreases.*

**CHART 6**  
**Comparison of Increases and Decreases in the Actuarial Value of Assets for Years Ended June 30, 2005 – 2014**



## SECTION 2: Valuation Results for the City of Birmingham Retirement and Relief System

It is desirable to have level and predictable plan costs from one year to the next. For this reason, the Board of Managers has approved an asset valuation method that gradually adjusts to market value. Under this valuation method, the full value of market fluctuations is not recognized in a single year and, as a result, the asset value and the plan costs are more stable.

The amount of the adjustment to recognize market value is treated as income, which may be positive or negative. Realized and unrealized gains and losses are treated equally and, therefore, the sale of assets has no immediate effect on the actuarial value.

*The chart shows the determination of the actuarial value of assets as of the valuation date.*

### CHART 7

#### Determination of Actuarial Value of Assets for Year Ended June 30, 2014

1. Market value of assets, June 30, 2014			\$1,032,760,391
2. Calculation of unrecognized return	Original <u>Amount*</u>	Unrecognized <u>Return**</u>	
(a) Year ended June 30, 2014	\$80,815,186	\$64,652,149	
(b) Year ended June 30, 2013	30,483,738	18,290,243	
(c) Year ended June 30, 2012	-32,071,454	-12,828,582	
(d) Year ended June 30, 2011	87,006,584	17,401,317	
(e) Year ended June 30, 2010	34,773,881	<u>0</u>	
(f) Total unrecognized return			87,515,127
3. Preliminary actuarial value: (1) - (2f)			945,245,264
4. Adjustment to be within 20% corridor			0
5. Final actuarial value of assets as of June 30, 2014: (3) + (4)			<u>\$945,245,264</u>
6. Actuarial value as a percentage of market value: (5) ÷ (1)			91.5%
7. Amount deferred for future recognition: (1) - (5)***			\$87,515,127

\*Total return minus expected return on a market value basis

\*\*Recognition at 20% per year over five years

\*\*\*Deferred return as of June 30, 2014 recognized in each of the next four years:

(a) Amount recognized on June 30, 2015	\$33,246,811	(c) Amount recognized on June 30, 2017	\$22,259,785
(b) Amount recognized on June 30, 2016	15,845,494	(d) Amount recognized on June 30, 2018	16,163,037

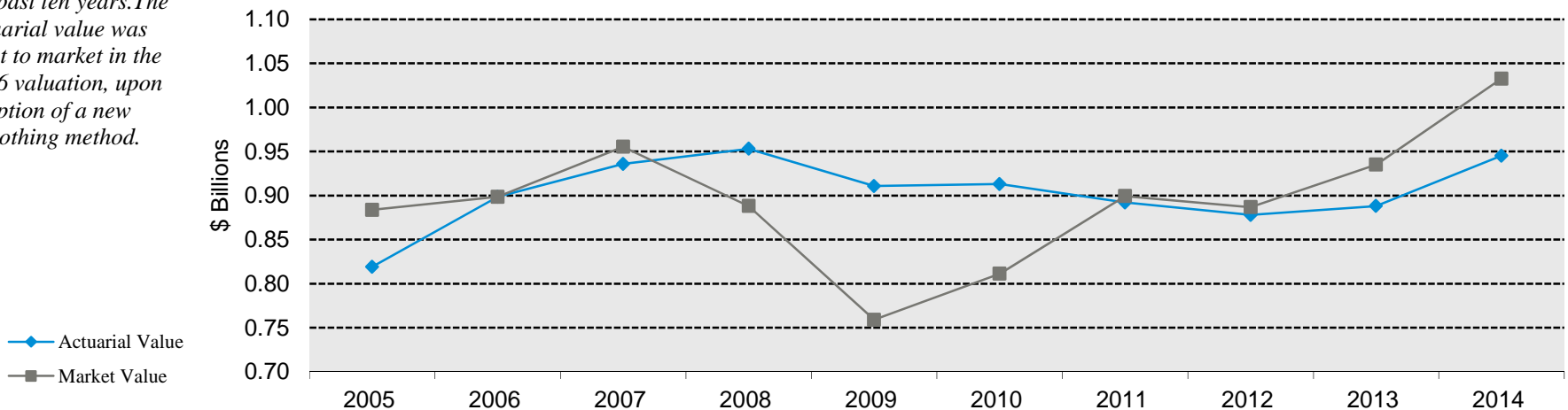
## SECTION 2: Valuation Results for the City of Birmingham Retirement and Relief System

Both the actuarial value and market value of assets are representations of the System's financial status. As investment gains and losses are gradually taken into account, the actuarial value of assets tracks the market value of assets. The actuarial asset value is significant because the System's liabilities are compared to these assets to determine what portion, if any, remains unfunded. Amortization of the unfunded actuarial accrued liability is an important element in determining the contribution requirement.

*This chart shows the change in the actuarial value of assets versus the market value over the past ten years. The actuarial value was reset to market in the 2006 valuation, upon adoption of a new smoothing method.*

**CHART 8**

**Actuarial Value of Assets vs. Market Value of Assets as of June 30, 2005 – 2014**



**SECTION 2: Valuation Results for the City of Birmingham Retirement and Relief System**

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**C. ACTUARIAL EXPERIENCE**

To calculate the required contribution, assumptions are made about future events that affect the amount and timing of benefits to be paid and assets to be accumulated. Each year actual experience is measured against the assumptions. If overall experience is more favorable than anticipated (an actuarial gain), the contribution requirement will decrease from the previous year. On the other hand, the contribution requirement will increase if overall actuarial experience is less favorable than expected (an actuarial loss).

Taking account of experience gains or losses in one year without making a change in assumptions reflects the belief that the single year’s experience was a short-term

development and that, over the long term, experience will return to the original assumptions. For contribution requirements to remain stable, assumptions should approximate experience.

If assumptions are changed, the contribution requirement is adjusted to take into account a change in experience anticipated for all future years.

The total gain is \$31,586,411, including a gain of \$43,484,694 from investments that was partially offset by a net loss of \$11,898,283 from all other sources. The net experience variation from individual sources other than investments was 0.9% of the actuarial accrued liability. A discussion of the major components of the actuarial experience is on the following pages.

*This chart provides a summary of the actuarial experience during the past year.*

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**CHART 9**  
**Actuarial Experience for Year Ended June 30, 2014**

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1. Net gain from investments*	\$43,484,694
2. Net gain from administrative expenses	27,942
3. Net loss from other experience	<u>-11,926,225</u>
4. Net experience gain: (1) + (2) + (3)	\$31,586,411

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\* Details in Chart 10

**SECTION 2: Valuation Results for the City of Birmingham Retirement and Relief System**

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**Investment Rate of Return**

A major component of projected asset growth is the assumed rate of return. The assumed return should represent the expected long-term rate of return, based on the System’s investment policy. For valuation purposes, the assumed rate of return on the actuarial value of assets is 7.00%. The actual rate of return on an actuarial basis for the 2013-2014 plan year was 12.02%.

Since the actual return for the year was greater than the assumed return, the System experienced an actuarial gain during the year ended June 30, 2014 with regard to its investments.

*This chart shows the gain due to investment experience.*

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**CHART 10**  
**Actuarial Value Investment Experience for Year Ended June 30, 2014**

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1. Actual return	\$104,147,855
2. Average value of assets	866,616,583
3. Actual rate of return: (1) ÷ (2)	12.02%
4. Assumed rate of return	7.00%
5. Expected return: (2) x (4)	\$60,663,161
6. Actuarial gain: (1) – (5)	<u>\$43,484,694</u>

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## SECTION 2: Valuation Results for the City of Birmingham Retirement and Relief System

Because actuarial planning is long term, it is useful to see how the assumed investment rate of return has followed actual experience over time. The chart below shows the rate of return on an actuarial basis compared to the market value investment return for the last ten years, including five-year and ten-year averages.

We have maintained the assumed rate of return of 7.00%. The Trustees' investment allocations have targets of 65% equity and 35% fixed income, according to information received from Morgan Stanley. Based on this investment policy and current capital market assumptions, 7.00% is a reasonable long-term assumption. Segal will continue to monitor the System's performance.

### CHART 11

#### Investment Return – Actuarial Value vs. Market Value: 2005 - 2014

Year Ended June 30	Net Interest and Dividend Income		Recognition of Capital Appreciation		Change in Asset Method		Actuarial Value Investment Return		Market Value Investment Return	
	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent
2005	\$27,114,712	3.43%	\$16,148,066	2.04%	--	--	\$43,262,778	5.48%	\$50,973,808	6.02%
2006	19,901,991	2.46	17,031,771	2.11	\$68,127,085	8.44%	105,060,847	13.01	40,468,583	4.64
2007	38,017,026	4.30	28,826,146	3.25	--	--	66,843,172	7.55	86,398,586	9.76
2008	30,863,174	3.35	19,934,936	2.17	--	--	50,798,110	5.52	-33,654,898	-3.58
2009	29,426,568	3.14	-39,403,205	-4.20	--	--	-9,976,637	-1.06	-96,873,908	-11.09
2010	24,452,410	2.73	12,425,399	1.39	--	--	36,877,809	4.12	86,792,989	11.68
2011	19,155,247	2.16	13,654,863	1.54	--	--	32,810,110	3.69	142,064,641	18.06
2012	32,400,056	3.71	-4,339,151	-0.49	--	--	28,060,905	3.22	29,540,542	3.36
2013	16,556,971	1.93	36,583,999	4.26	--	--	53,140,970	6.19	91,188,014	10.52
2014	<u>20,310,562</u>	2.34	<u>83,837,293</u>	9.67	--	--	<u>104,147,855</u>	12.02	<u>144,761,454</u>	15.85
Total	\$258,198,717		\$184,700,117		\$68,127,085		\$511,025,919		\$541,659,811	
							Five-year average return	5.82%		11.80%
							Ten-year average return	5.86%		6.29%

Note: Each year's yield is weighted by the average asset value in that year.

**SECTION 2: Valuation Results for the City of Birmingham Retirement and Relief System**

Subsection B described the actuarial asset valuation method that gradually takes into account fluctuations in the market value rate of return. The effect of this is to stabilize the actuarial rate of return, which contributes to leveling pension plan costs.

**Administrative Expenses**

Administrative expenses for the year ended June 30, 2014 totaled \$122,916 compared to the assumption of \$150,000. This resulted in a gain of \$27,942 for the year. We have maintained the assumption of \$150,000 for the current year.

*This chart illustrates how this leveling effect has actually worked over the years 2005 - 2014. The actuarial return for the year ended June 30, 2006 reflects a change in asset method.*

**CHART 12**  
**Market and Actuarial Rates of Return for Years Ended June 30, 2005 - 2014**



## SECTION 2: Valuation Results for the City of Birmingham Retirement and Relief System

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### **Other Experience**

There are other differences between the expected and the actual experience that appear when the new valuation is compared with the projections from the previous valuation. These include:

- the extent of turnover among the participants,
- retirement experience (earlier or later than expected),
- mortality (more or fewer deaths than expected),
- the number of disability retirements, and
- salary increases different than assumed.

The net loss from this other experience for the year ended June 30, 2014 amounted to \$11,926,225, which is 0.9% of the actuarial accrued liability.

### **Actuarial Assumptions**

The System undergoes an in-depth study every five years to compare the actuarial assumptions to actual experience. The assumptions are then updated as appropriate. The last experience review was completed for the five-year period ended June 30, 2010, and therefore an updated study is anticipated for the period ended June 30, 2015.

**SECTION 2: Valuation Results for the City of Birmingham Retirement and Relief System**

**D. RECOMMENDED CONTRIBUTION**

The amount of annual contribution required to fund the Plan is comprised of a normal cost payment and a payment on the unfunded actuarial accrued liability. This total amount is then divided by the total payroll for active members to determine the funding rate of 22.39% of payroll.

The recommended contribution is based on a rolling 30-year amortization of the unfunded actuarial accrued liability as a level percent of pay, assuming a payroll growth of 3.00%. For the plan year beginning July 1, 2015,

both the City and members will begin increased contributions of 7.00% of pay each, up from 6.50%. The combined total of 14.00% of payroll results in an annual deficit of 8.39% when compared to the recommended contribution of 22.39%. A higher contribution will be required to fund this System on an ongoing basis and meet accepted principles and practices. The unfunded actuarial accrued liability is not being amortized by the current contribution levels.

*The chart compares this valuation's recommended contribution with the prior valuation.*

**CHART 13**  
**Recommended Contribution**

	Year Beginning July 1			
	2014		2013	
	Amount	% of Payroll	Amount	% of Payroll
1. Normal cost*	\$23,678,550	12.38%	\$22,733,563	12.45%
2. Administrative expenses	<u>144,630</u>	<u>0.07%</u>	<u>144,630</u>	<u>0.08%</u>
3. Employer normal cost: (1) + (2)	\$23,823,180	12.45%	\$22,878,193	12.53%
4. Actuarial accrued liability	1,263,665,128		1,216,684,458	
5. Actuarial value of assets	<u>945,245,264</u>		<u>888,209,730</u>	
6. Unfunded actuarial accrued liability: (4) - (5)	\$318,419,864		\$328,474,728	
7. Payment on unfunded actuarial accrued liability	17,475,981	9.14%	18,027,826	9.87%
8. Total recommended contribution: (3) + (7), adjusted for timing**	<u>\$42,832,673</u>	<u>22.39%</u>	<u>\$42,424,934</u>	<u>23.23%</u>
9. Total payroll	\$191,299,778		\$182,634,179	

\*Includes net obligations from the Supplemental System of -\$2,277,164 for July 1, 2014 and -\$2,064,879 for July 1, 2013 (-\$2,361,719 and -\$2,141,552 adjusted for timing).

\*\*Recommended contributions are assumed to be paid at the beginning of every month.

## SECTION 2: Valuation Results for the City of Birmingham Retirement and Relief System

The recommended contribution requirements as of July 1, 2014 are based on all of the data described in the previous sections, the actuarial assumptions described in Section 4, and the Plan provisions adopted at the time of preparation of the Actuarial Valuation. They include all changes affecting future costs, adopted benefit changes, actuarial gains and losses and changes in the actuarial assumptions.

### Reconciliation of Recommended Contribution

The chart below details the changes in the recommended contribution from the prior valuation to the current year's valuation.

*The chart reconciles the contribution from the prior valuation to the amount determined in this valuation.*

#### CHART 14

#### Reconciliation of Recommended Contribution from July 1, 2013 to July 1, 2014

<b>Recommended Contribution as of July 1, 2013</b>	\$42,424,934
Effect of investment gain	-2,521,041
Effect of other gains and losses on accrued liability	689,807
Effect of contributions less than recommended contribution	980,401
Effect of expected change in amortization payment due to payroll growth	560,917
Effect of maintaining a 30-year rolling amortization period	-336,321
Effect of net other changes	<u>1,033,976</u>
<b>Total change</b>	<u>\$407,739</u>
<b>Recommended Contribution as of July 1, 2014</b>	\$42,832,673

**SECTION 3: Supplemental Information for the City of Birmingham Retirement and Relief System**

**EXHIBIT A**

**Table of Plan Coverage**

<b>Category</b>	<b>Year Ended June 30</b>		<b>Change From Prior Year</b>
	<b>2014</b>	<b>2013</b>	
<b>Active participants in valuation:</b>			
Number	3,889	3,901	-0.3%
Average age	45.0	45.0	N/A
Average years of service	11.9	12.0	N/A
Total payroll	\$191,299,778	\$182,634,179	4.7%
Average payroll	49,190	46,817	5.1%
Account balances	124,406,629	115,772,255	7.5%
Total active vested participants	2,872	2,770	3.7%
<b>Vested terminated participants*</b>			
	303	283	7.1%
<b>Retired participants:</b>			
Number in pay status	1,911	1,852	3.2%
Average age	69.3	69.0	N/A
Average monthly benefit	\$2,395	\$2,344	2.2%
<b>Disabled participants:</b>			
Number in pay status	483	487	-0.8%
Average age	60.3	60.0	N/A
Average monthly benefit	\$1,659	\$1,633	1.6%
<b>Beneficiaries in pay status:</b>			
Number in pay status	503	495	1.6%
Average age	73.5	73.3	N/A
Average monthly benefit	\$962	\$934	3.0%

*\*Includes future pensioners currently receiving benefits from the Supplemental System.*

**SECTION 3: Supplemental Information for the City of Birmingham Retirement and Relief System**

**EXHIBIT B**

**Participants in Active Service as of June 30, 2014  
By Age, Years of Service, and Average Payroll**

Age	Years of Service									
	Total	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 & over
Under 25	107	106	--	1	--	--	--	--	--	--
	\$36,098	\$36,197	--	\$25,631	--	--	--	--	--	--
25 - 29	293	195	97	1	--	--	--	--	--	--
	39,271	38,766	\$40,085	58,885	--	--	--	--	--	--
30 - 34	422	186	189	46	1	--	--	--	--	--
	43,011	39,799	44,497	50,044	\$36,012	--	--	--	--	--
35 - 39	472	129	172	120	51	--	--	--	--	--
	45,109	41,693	40,834	51,432	53,292	--	--	--	--	--
40 - 44	590	122	134	132	167	35	--	--	--	--
	51,628	44,138	44,970	54,605	58,995	\$56,848	--	--	--	--
45 - 49	584	87	101	116	152	94	34	--	--	--
	51,546	41,419	43,774	49,310	55,754	62,472	\$59,158	--	--	--
50 - 54	619	84	79	85	109	114	139	9	--	--
	53,620	42,863	42,891	49,593	53,861	59,097	63,465	\$61,907	--	--
55 - 59	506	60	68	79	77	89	99	32	2	--
	50,889	44,409	43,629	48,605	49,533	56,184	54,918	59,546	\$60,949	--
60 - 64	239	37	30	35	34	33	47	17	4	2
	55,431	53,475	46,561	51,745	54,536	56,739	60,874	62,323	70,040	\$67,134
65 - 69	43	7	10	5	4	5	6	3	2	1
	66,517	62,939	46,860	53,844	42,539	66,273	67,800	80,643	240,456	50,661
70 & over	14	4	5	1	1	3	--	--	--	--
	62,584	89,003	35,058	64,585	61,456	72,947	--	--	--	--
Total	3,889	1,017	885	621	596	373	325	61	8	3
	\$49,190	\$41,500	\$43,124	\$51,024	\$55,120	\$59,041	\$60,116	\$61,706	\$110,371	\$61,643

**SECTION 3: Supplemental Information for the City of Birmingham Retirement and Relief System**

**EXHIBIT C**

**Reconciliation of Participant Data**

	<b>Active Participants</b>	<b>Vested Former Participants</b>	<b>Fire and Police Retirees</b>	<b>Disableds</b>	<b>Retired Participants</b>	<b>Beneficiaries</b>	<b>Total</b>
Number as of July 1, 2013	3,901	19	264	487	1,852	495	7,018
New participants	263	N/A	0	N/A	N/A	N/A	263
Terminations – with vested rights	-9	9	0	0	0	0	0
Retirements	-122	-2	40	N/A	84	N/A	0
New disabilities	-17	0	0	17	N/A	N/A	0
Return to work	2	0	0	-1	-1	N/A	0
Deceased	-9	0	0	-21	-52	-34	-116
New beneficiaries	0	0	0	0	0	45	45
Lump sum payoffs	-126	0	0	0	0	0	-126
Rehire	7	0	0	N/A	0	N/A	7
Certain period expired	N/A	N/A	0	0	0	-3	-3
Data adjustments	-1	0	0	1	1	0	1
Retirees transferring from Supplemental Plan	<u>0</u>	<u>0</u>	<u>-27</u>	<u>0</u>	<u>27</u>	<u>0</u>	<u>0</u>
Number as of July 1, 2014	3,889	26	277	483	1,911	503	7,089



**SECTION 3: Supplemental Information for the City of Birmingham Retirement and Relief System**

**EXHIBIT D**

**Summary Statement of Income and Expenses on an Actuarial Value Basis**

	Year Ended June 30, 2014	Year Ended June 30, 2013
<b>Net assets at actuarial value at the beginning of the year</b>	\$888,209,730	\$878,048,507
<b>Contribution income:</b>		
Employer contributions	\$14,039,103	\$13,591,846
Employee contributions	11,984,752	11,786,408
F&P contribution transfer adjustment*	-888,918	888,918
Less administrative expenses	<u>-122,916</u>	<u>-138,933</u>
Net contribution income	25,012,021	26,128,239
<b>Other income</b>	0	2,000
<b>Investment income:</b>		
Interest and dividends	\$24,093,753	\$19,709,739
Recognition of capital appreciation	83,837,293	36,583,999
Less investment fees	<u>-3,783,191</u>	<u>-3,152,768</u>
Net investment income	<u>104,147,855</u>	<u>53,140,970</u>
<b>Total income available for benefits</b>	\$129,159,876	\$79,271,209
<b>Less benefit payments:</b>		
Benefits	-\$68,165,067	-\$66,536,834
Refunds	-1,682,976	-1,607,208
DROP payments	-2,276,299	-966,294
Pension reimbursements	<u>0</u>	<u>350</u>
Net benefit payments	-\$72,124,342	-\$69,109,986
<b>Change in reserve for future benefits</b>	\$57,035,534	\$10,161,224
<b>Net assets at actuarial value at the end of the year</b>	\$945,245,264	\$888,209,730

\*As of June 30, 2013, there was a contribution balance of \$888,918 for active fire and police employees with more than 30 years of service, which was understood to be a pending transfer from the Supplemental System. Segal Consulting adjusted the market value of assets to account for this pending transfer. This adjustment was reversed as of June 30, 2014, as the transfer was within the Supplemental System accounts, and not to the Retirement and Relief System.

Note: A portion of the Retirement and Relief System's assets is allocated to the Health Department. The above summary excludes the Health Department portion.

**SECTION 3: Supplemental Information for the City of Birmingham Retirement and Relief System**

**EXHIBIT E**

**Summary Statement of Income and Expenses on a Market Value Basis**

	Year Ended June 30, 2014	Year Ended June 30, 2013
<b>Net assets at market value at the beginning of the year</b>	\$935,111,258	\$886,902,991
<b>Contribution income:</b>		
Employer contributions	\$14,039,103	\$13,591,846
Employee contributions	11,984,752	11,786,408
F&P contribution transfer adjustment*	-888,918	888,918
Less administrative expenses	<u>-122,916</u>	<u>-138,933</u>
Net contribution income	25,012,021	26,128,239
<b>Other income</b>	0	2,000
<b>Investment income:</b>		
Interest and dividends	\$24,093,753	\$19,709,739
Asset appreciation	124,450,892	74,631,043
Less investment and administrative fees	<u>-3,783,191</u>	<u>-3,152,768</u>
Net investment income	<u>144,761,454</u>	<u>91,188,014</u>
<b>Total income available for benefits</b>	\$169,773,475	\$117,318,253
<b>Less benefit payments:</b>		
Benefits	-\$68,165,067	-\$66,536,834
Refunds	-1,682,976	-1,607,208
DROP payments	-2,276,299	-966,294
Pension reimbursements	<u>0</u>	<u>350</u>
Net benefit payments	-\$72,124,342	-\$69,109,986
<b>Change in reserve for future benefits</b>	\$97,649,133	\$48,208,267
<b>Net assets at market value at the end of the year</b>	\$1,032,760,391	\$935,111,258

\*As of June 30, 2013, there was a contribution balance of \$888,918 for active fire and police employees with more than 30 years of service, which was understood to be a pending transfer from the Supplemental System. Segal Consulting adjusted the market value of assets to account for this pending transfer. This adjustment was reversed as of June 30, 2014, as the transfer was within the Supplemental System accounts, and not to the Retirement and Relief System.

Note: A portion of the Retirement and Relief System's assets is allocated to the Health Department. The above summary excludes the Health Department portion.

**SECTION 3: Supplemental Information for the City of Birmingham Retirement and Relief System**

**EXHIBIT F**

**Summary Statement of Plan Assets**

	Year Ended June 30, 2014	Year Ended June 30, 2013
<b>Cash equivalents</b>	\$34,955,625	\$16,340,739
<b>Accounts receivable:</b>		
Employee contributions	\$0	\$60,083
Employee loans	10,348,970	11,538,984
Accrued interest and dividends	2,288,933	4,276,762
F&P contributions transfer adjustment	<u>0</u>	<u>888,918</u>
Total accounts receivable	12,637,903	16,764,747
<b>Investments:</b>		
Corporate stock	\$758,171,586	\$554,422,815
Domestic corporate bonds	137,300,768	195,602,276
U.S. Government obligations	<u>90,585,406</u>	<u>153,524,137</u>
Total investments at market value	<u>986,057,760</u>	<u>903,549,228</u>
<b>Total assets</b>	\$1,033,651,288	\$936,654,714
<b>Less accounts payable:</b>	-\$890,897	-\$1,543,456
<b>Net assets at market value</b>	<u>\$1,032,760,391</u>	<u>\$935,111,258</u>
<b>Net assets at actuarial value</b>	<u>\$945,245,264</u>	<u>\$888,209,730</u>

**SECTION 3: Supplemental Information for the City of Birmingham Retirement and Relief System**

**EXHIBIT G**

**Development of the Fund Through June 30, 2014**

<b>Year Ended June 30</b>	<b>Employer Contributions</b>	<b>Employee Contributions</b>	<b>Other Income</b>	<b>Net Investment Return*</b>	<b>Administrative Expenses</b>	<b>Benefit Payments</b>	<b>Actuarial Value of Assets at End of Year</b>
2005	\$10,881,632	\$10,210,996	\$79,000	\$43,262,778	\$211,000	\$46,668,936	\$819,166,736
2006	11,398,732	10,522,586	36,000	105,060,847**	160,000	47,353,888	898,671,013
2007	12,006,508	10,707,106	16,000	66,843,172	180,000	52,242,705	935,821,094
2008	12,061,584	10,604,722	1,000	50,798,110	183,375	56,023,465	953,079,670
2009	12,770,110	12,433,019	11,000	-9,976,637	245,261	57,302,709	910,769,192
2010	13,224,808	11,896,839	17,000	36,877,809	263,250	59,444,574	913,077,824
2011	13,772,490	11,881,396	8,000	32,810,110	273,817	79,179,627	892,096,375
2012	13,676,554	12,027,821	12,000	28,060,904	145,619	67,679,529	878,048,507
2013	13,591,846	11,786,408	890,918***	53,140,970	138,933	69,109,986	888,209,730
2014	14,039,103	11,984,752	-888,918***	104,147,855	122,916	72,124,342	945,245,264

\*Net of investment fees

\*\*Includes effect of change in asset method

\*\*\*As of June 30, 2013, there was a contribution balance of \$888,918 for active fire and police employees with more than 30 years of service, which was understood to be a pending transfer from the Supplemental System. Segal Consulting adjusted the market value of assets to account for this pending transfer. This adjustment was reversed as of June 30, 2014, as the transfer was within the Supplemental System accounts, and not to the Retirement and Relief System.

**SECTION 3: Supplemental Information for the City of Birmingham Retirement and Relief System**

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**EXHIBIT H**

**Development of Unfunded Actuarial Accrued Liability for Year Ended June 30, 2014**

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1. Unfunded actuarial accrued liability at beginning of year		\$328,474,728
2. Normal cost at beginning of year		22,878,193
3. Total contributions		-25,134,937*
4. Interest		
(a) For whole year on (1) + (2)	\$24,594,704	
(b) Monthly on (3)	<u>-806,413</u>	
(c) Total interest		<u>23,788,291</u>
5. Expected unfunded actuarial accrued liability		\$350,006,275
6. Changes due to net experience gain		<u>-31,586,411</u>
7. Unfunded actuarial accrued liability at end of year		<u>\$318,419,864</u>

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\* Includes Supplemental Plan transfer adjustment of \$888,918.

### SECTION 3: Supplemental Information for the City of Birmingham Retirement and Relief System

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#### EXHIBIT I

#### Section 415 Limitations

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Section 415 of the Internal Revenue Code (IRC) specifies the maximum benefits that may be paid to an individual from a defined benefit plan and the maximum amounts that may be allocated each year to an individual's account in a defined contribution plan.

A qualified pension plan may not pay benefits in excess of the Section 415 limits. The ultimate penalty for non-compliance is disqualification: active participants could be taxed on their vested benefits and the IRS may seek to tax the income earned on the plan's assets.

In particular, Section 415(b) of the IRC limits the maximum annual benefit payable at the Normal Retirement Age to a dollar limit of \$160,000 indexed for inflation. That limit is \$210,000 for both 2014 and 2015. Normal Retirement Age for these purposes is age 62. These are the limits in simplified terms. They must be adjusted based on each participant's circumstances, for such things as age at retirement, form of benefits chosen and after tax contributions. (There is no retirement age adjustment for public safety.)

Benefits in excess of the limits may be paid through a qualified governmental excess plan that meets the requirements of Section 415(m).

Legal Counsel's review and interpretation of the law and regulations should be sought on any questions in this regard.

**SECTION 3: Supplemental Information for the City of Birmingham Retirement and Relief System**

**EXHIBIT J**

**Comparative Summary of Principal Valuation Results**

	Year Ended June 30, 2014	Year Ended June 30, 2013
<b>Participant data</b>		
Active members	3,889	3,901
Total annual payroll	\$191,299,778	\$182,634,179
Retired members and beneficiaries	2,897	2,834
Total annualized benefit	\$70,348,257	\$67,188,941
Terminated vested members	26	19
Total annualized benefit	\$313,329	\$253,677
Future pensioners currently receiving benefits from Supplemental System	277	264
Total annualized benefit	\$11,292,345	\$10,607,058
<b>Actuarial value of assets</b>	\$945,245,264	\$888,209,730
<b>Actuarial accrued liability:</b>		
Active members	\$496,425,267	\$489,133,640
Terminated vested members	2,636,660	2,282,342
Retired members and beneficiaries	666,716,108	636,099,487
Future pensioners currently receiving benefits from Supplemental System	<u>97,887,093</u>	<u>89,168,989</u>
Total	\$1,263,665,128	\$1,216,684,458
<b>Unfunded actuarial accrued liability</b>	\$318,419,864	\$328,474,728

## SECTION 3: Supplemental Information for the City of Birmingham Retirement and Relief System

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### EXHIBIT K

#### Definitions of Pension Terms

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The following list defines certain technical terms for the convenience of the reader:

#### **Assumptions or Actuarial**

##### **Assumptions:**

The estimates on which the cost of the Plan is calculated including:

- (a) Investment return — the rate of investment yield that the Plan will earn over the long-term future;
- (b) Mortality rates — the death rates of employees and pensioners; life expectancy is based on these rates;
- (c) Retirement rates — the rate or probability of retirement at a given age;
- (d) Withdrawal rates — the rates at which employees of various ages are expected to leave employment for reasons other than death, disability, or retirement.

##### **Normal Cost:**

The amount of contributions required to fund the benefit allocated to the current year of service.

##### **Actuarial Accrued Liability**

##### **For Actives:**

The value of all projected benefit payments for current members less the portion that will be paid by future normal costs.

##### **Actuarial Accrued Liability**

##### **For Pensioners:**

The single-sum value of lifetime benefits to existing pensioners. This sum takes account of life expectancies appropriate to the ages of the pensioners and the interest that the sum is expected to earn before it is entirely paid out in benefits.

##### **Unfunded Actuarial Accrued**

##### **Liability:**

The extent to which the actuarial accrued liability of the Plan exceeds the assets of the Plan. There is a wide range of approaches to paying off the unfunded actuarial accrued liability, from meeting the interest accrual only to amortizing it over a specific period of time.



### SECTION 3: Supplemental Information for the City of Birmingham Retirement and Relief System

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#### **Amortization of the Unfunded**

**Actuarial Accrued Liability:** Payments made over a period of years equal in value to the Plan's unfunded actuarial accrued liability.

#### **Investment Return:**

The rate of earnings of the Plan from its investments, including interest, dividends and capital gain and loss adjustments, computed as a percentage of the average value of the fund. For actuarial purposes, the investment return often reflects a smoothing of the capital gains and losses to avoid significant swings in the value of assets from one year to the next.

**SECTION 4: Reporting Information for the City of Birmingham Retirement and Relief System**

**EXHIBIT I**

**Summary of Actuarial Valuation Results as of July 1, 2014**

The valuation was made with respect to the following data supplied to us:

1. Retired participants as of the valuation date (including 503 beneficiaries in pay status)		2,897
2. Participants inactive during year ended June 30, 2014 with vested rights (including 277 future pensioners currently receiving benefits from the Supplemental System)		303
3. Participants active during the year ended June 30, 2014		3,889
Fully vested	2,872	
Not vested	1,017	

The actuarial factors as of the valuation date are as follows:

1. Normal cost, including administrative expenses		\$23,823,180
2. Actuarial accrued liability		1,263,665,128
Retired participants and beneficiaries	\$666,716,108	
Inactive participants with vested rights*	100,523,753	
Active participants	496,425,267	
3. Actuarial value of assets (\$1,032,760,391 at market value as reported by the City)		945,245,264
4. Unfunded actuarial accrued liability		\$318,419,864

The determination of the recommended contribution is as follows:

1. Normal cost		\$23,678,550
2. Administrative expenses		144,630
3. Employer normal cost: (1) + (2)		\$23,823,180
4. Payment on unfunded actuarial accrued liability		17,475,981
5. Total recommended contribution: (3) + (4), adjusted for timing		<u>\$42,832,673</u>
6. Total payroll		\$191,299,778
7. Total recommended contribution as a percentage of projected payroll: (5) ÷ (6)		22.39%

\* Includes liability for deferred benefits from the Retirement and Relief System payable to pensioners currently receiving benefits from the Supplemental System.

**SECTION 4: Reporting Information for the City of Birmingham Retirement and Relief System**

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**EXHIBIT II**

**History of Employer Contributions**

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<b>Plan Year Ended June 30</b>	<b>Actuarially Determined Employer Contributions (ADEC)*</b>	<b>Actual Contributions</b>	<b>Percentage Contributed</b>
2009	\$17,050,689	\$12,770,110	74.9%
2010	21,118,910	13,224,808	62.6%
2011	18,147,790	13,772,490	75.9%
2012	18,904,668	13,676,554	72.3%
2013	20,516,938	13,591,846	66.2%
2014	30,553,712	14,039,103	45.9%
2015	30,398,187	--	--

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*\* Prior to July 1, 2013, this amount was the Annual Required Contribution (ARC) and was calculated presuming that the employees would be responsible for an equal share of the cost of the System. However, if employee contribution rates were insufficient to cover half of the cost, the City was ultimately responsible for the funding of the Plan. Beginning July 1, 2013, the Actuarially Determined Employer Contribution is equal to the total calculated contribution in the most recent actuarial valuation, minus the portion expected to be covered by employee contributions.*

**SECTION 4: Reporting Information for the City of Birmingham Retirement and Relief System**

**EXHIBIT III**

**Schedule of Funding Progress**

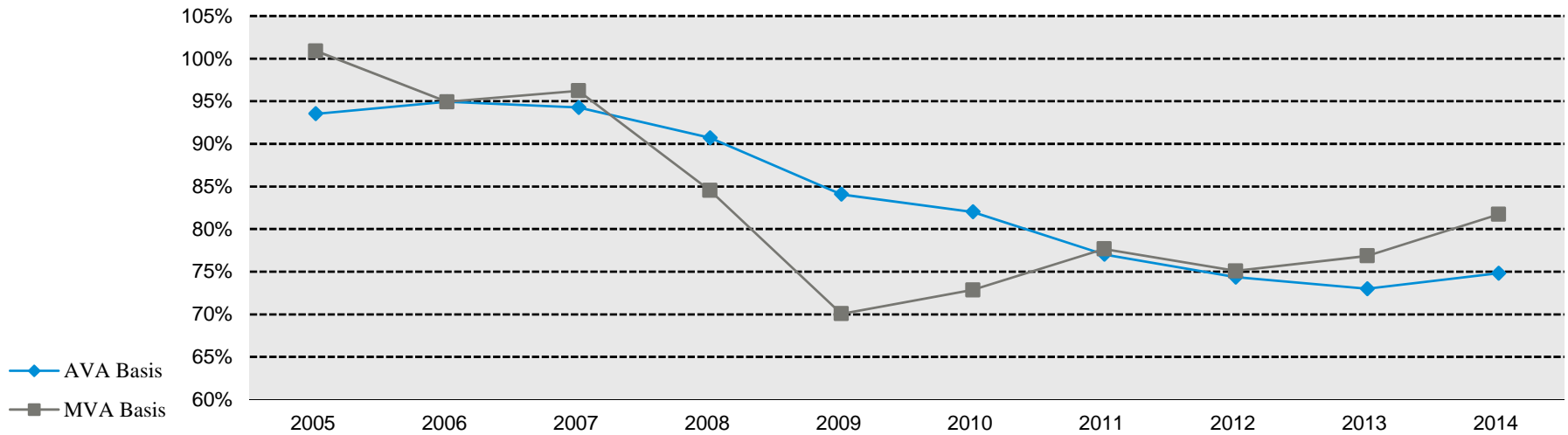
<b>Actuarial Valuation Date</b>	<b>Actuarial Value of Assets (a)</b>	<b>Actuarial Accrued Liability (AAL) (b)</b>	<b>Unfunded AAL (UAAL) (b) - (a)</b>	<b>Funded Ratio (a) / (b)</b>	<b>Covered Payroll (c)</b>	<b>UAAL as a Percentage of Covered Payroll [(b) - (a)] / (c)</b>
07/01/2009	\$910,769,192	\$1,083,256,135	\$172,486,943	84.08%	\$186,523,480	92.47%
07/01/2010	913,077,824	1,113,441,433	200,363,609	82.01%	193,229,880	103.69%
07/01/2011	892,096,375	1,158,070,396	265,974,021	77.03%	177,977,161	149.44%
07/01/2012	878,048,507	1,181,090,260	303,041,753	74.34%	181,406,586	167.05%
07/01/2013	888,209,730	1,216,684,458	328,474,728	73.00%	182,634,179	179.85%
07/01/2014	945,245,264	1,263,665,128	318,419,864	74.80%	191,299,778	166.45%

**SECTION 4: Reporting Information for the City of Birmingham Retirement and Relief System**

**EXHIBIT IV  
Funded Ratio**

A critical piece of information regarding the Plan's financial status is the funded ratio. This ratio compares the actuarial value of assets to the actuarial accrued liabilities of the Plan as calculated. High ratios indicate a well-funded plan with assets sufficient to cover the plan's actuarial accrued liabilities. Lower ratios may indicate recent changes to benefit structures, funding of the plan below actuarial requirements, poor asset performance, or a variety of other factors.

The chart below depicts a history of the funded ratios for this plan, on both an actuarial value (AVA) and a market value (MVA) basis.



**SECTION 4: Reporting Information for the City of Birmingham Retirement and Relief System**

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**EXHIBIT V**

**Actuarial Assumptions and Actuarial Cost Method**

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**Rationale for Demographic**

**and Noneconomic Assumptions:**

The information and analysis used in selecting each demographic assumption that has a significant effect on this actuarial valuation is shown in the Experience Study Report for the five-year period ended June 30, 2010. Based on the results of that study as well as professional judgment, no additional demographic assumption changes are warranted at this time and will be assessed again in the next five-year review.

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**Mortality Rates:**

*Healthy:*

RP-2000 Combined Healthy Mortality Table, set forward two years for both males and females

*Disabled:*

RP-2000 Disabled Retiree Mortality Table, multiplied by 70%

RP-2000 Combined Healthy Annuitant Mortality Table and the RP-2000 Disabled Retiree Mortality Table, adjusted as shown above, reasonably reflect the mortality experience of the Retirement System as of the measurement date.

Based on a five-year review of mortality experience for the 2005-2010 period, these mortality tables were determined to contain a margin of 8% to anticipate future mortality improvement. An analysis of recent experience indicates that this margin has eroded over time. The mortality assumptions will be assessed again in an updated five-year review before the next valuation is completed. New mortality rates will be set as appropriate, with allowance for improvements in life expectancy.

**SECTION 4: Reporting Information for the City of Birmingham Retirement and Relief System**

**Termination Rates Before Retirement:**

Age	Rate (%)							
	Mortality		Disability			Withdrawal		
	Male	Female	General	Fire	Police	General*	Fire**	Police***
20	0.04	0.02	0.08	0.12	0.06	4.89	3.79	6.65
25	0.04	0.02	0.11	0.17	0.09	4.76	2.69	4.73
30	0.06	0.04	0.14	0.22	0.11	4.56	2.07	3.63
35	0.09	0.06	0.19	0.29	0.15	4.23	1.59	2.80
40	0.12	0.09	0.29	0.44	0.22	3.77	1.20	2.11
45	0.17	0.13	0.47	0.72	0.36	3.18	0.82	1.43
50	0.27	0.20	0.79	1.21	0.61	2.23	0.40	0.70
55	0.47	0.35	1.31	2.02	1.01	0.85	0.00	0.00
60	0.88	0.67	2.12	3.25	1.63	0.08	0.00	0.00

\* Withdrawal rates shown for General Employees are multiplied by 2.50 during the first five years of employment.

\*\* Withdrawal rates shown for Firefighters are multiplied by 1.75 during the first five years of employment.

\*\*\* Withdrawal rates shown for Police Officers are multiplied by 1.70 during the first five years of employment.

**SECTION 4: Reporting Information for the City of Birmingham Retirement and Relief System**

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**Retirement Rates:** Fire and Police employees are assumed to retire in accordance with the following rates. Benefits are payable from the Firemen’s and Policemen’s Supplemental Pension System until the participant reaches their Normal Retirement Age under the Retirement and Relief System.

<b>Fire</b>		<b>Police</b>	
<u>Years of Service*</u>	<u>Rate</u>	<u>Years of Service*</u>	<u>Rate</u>
20	10%	20	45%
21-25	5	21	20
26	25	22-25	5
27-28	8	26	15
29	60	27	20
30	10	28	15
31-32	0	29	50
33	40	30	30
34	20	31-32	0
35	100	33	45
		34	25
		35	100

\* Retirement is assumed to occur no later than age 65

General employees are assumed to retire, after meeting the service requirements, in accordance with the following rates:

<u>Age</u>	<u>Rate**</u>
Under 50	0%
50-54	15
55-59	8
60	15
61	20
62	40
63-64	20
65	40
66-74	25
Over 74	100

\*\* General Employee rates are decreased to 0% at 30 years and decreased by 75% when employee has 31-32 years of service. The rate is increased by 150% of the rate shown when employee reaches 33 years of service.



#### SECTION 4: Reporting Information for the City of Birmingham Retirement and Relief System

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**Retirement Age for Inactive**

**Vested Participants:** 60

**Unknown Data for Participants:** Same as those exhibited by Participants with similar known characteristics. If not specified, Participants are assumed to be male.

**Percent Married:** 80%

**Age of Spouse:** Females three years younger than males

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**On the Job Disability:**

*General* 50%  
*Fire and Police* 100%

**On the Job Death:**

*General* 5%  
*Fire and Police* 15%

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**Net Investment Return:** 7.00%

The net investment return assumption was chosen by the Retirement System's Board of Trustees, with input from the actuary. This assumption is a long-term estimate derived from historical data, current and recent market expectations, and professional judgment. As part of the analysis, a building block approach was used that reflects inflation expectations and anticipated risk premiums for each of the portfolio's asset classes, as well as the System's target asset allocation.

**SECTION 4: Reporting Information for the City of Birmingham Retirement and Relief System**

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**Salary Scale:**

<u>Age</u>	<u>Annual Increase Rate (%)</u>	
	<u>General</u>	<u>Fire and Police</u>
20	7.50	9.50
25	6.75	7.60
30	6.00	6.20
35	5.50	5.10
40	5.00	4.50
45	4.50	4.00
50	4.00	4.00
55	3.50	4.00
60	3.00	4.00

*Includes allowance for inflation of 3.00% per year.*

The salary scale assumption is based on the City’s pay plan, along with analysis completed in conjunction with an Experience Study Report for the five-year period ended June 30, 2010.

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<b>Interest on DROP Accounts:</b>	5.00%
<b>Administrative Expenses:</b>	\$150,000, payable monthly, equivalent to \$144,630 at the beginning of the year.
<b>Actuarial Value of Assets:</b>	Market value of assets less unrecognized returns in each of the last five years. Unrecognized return is equal to the difference between the actual market return and the expected return on the market value, and is recognized over a five-year period, further adjusted, if necessary, to be within 20% of the market value.
<b>Actuarial Cost Method:</b>	Entry Age Normal Actuarial Cost Method. Entry Age is the age at the time the participant would have commenced employment if the plan had always been in existence. Normal Cost and Actuarial Accrued Liability are calculated on an individual basis and are allocated by service, with Normal Cost determined as if the current benefit accrual rate had always been in effect. Actuarial Liability is allocated by salary.
<b>Change in Assumptions:</b>	There have been no changes in actuarial assumptions since the last valuation.

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**SECTION 4: Reporting Information for the City of Birmingham Retirement and Relief System**

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**EXHIBIT VI**  
**Summary of Plan Provisions**

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This exhibit summarizes the major provisions of the System included in the valuation. It is not intended to be, nor should it be interpreted as, a complete statement of all plan provisions.

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**Plan Year:** July 1 through June 30

**Plan Status:** Ongoing

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**Normal Pension:**

*Eligibility* A participant may retire at (a) age 60 if he has completed 5 years of credited service, or (b) any age if he has completed 30 years of credited service.

*Amount:* 2.50% of final average salary for each year of credited service. This amount cannot be greater than 75.0% of the final average salary nor less than \$400 per month.  
Service credit used to determine the benefit amount may be increased by credit granted for unused sick leave (on a percent of possible total basis).  
Final average salary is defined as the highest average compensation over any 36-month period of the employee's last ten years of participation.

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**Early Retirement Pension:**

*Eligibility* A City participant may retire at age 55 if he has completed 25 years of credited service.

*Amount* 1.85% of final average salary for each year of credited service.

**SECTION 4: Reporting Information for the City of Birmingham Retirement and Relief System**

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**Disability:**

**Ordinary**

*Service Requirement*

5 years credited service.

*Amount*

2.00% of final average salary at disability for each year of credited service, payable immediately. This amount cannot be greater than 60% of final average salary nor less than \$400.

**Extraordinary**

*Service Requirement*

None

*Amount*

70% of final monthly salary at disability, offset by the maximum Worker's Compensation benefit, payable immediately.

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**Termination:**

To a participant terminating before becoming eligible for a vested deferred pension from the plan, a lump sum of his or her own contributions without interest is payable.

Participants terminating after 5 years of actual service who leave their contributions in the System Fund have a non-forfeitable right to a monthly pension beginning at age 60. The form and amount of the pension are the same as the normal pension.

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**Death Benefits:**

If a participant dies prior to his or her attainment of eligibility for retirement, a lump sum of his or her own contributions without interest is payable to his or her beneficiary.

If an active participant who is eligible to retire or a retired participant dies, 60% of the accrued pension benefit is payable to the surviving spouse, if any, during his or her remaining lifetime. If an active participant (other than a participant of the Firemen and Policemen Supplemental System) who is not eligible to retire, but who has completed 5 years of service dies, a portion of 60% of the accrued pension benefit is payable to the spouse during her remaining lifetime. This portion is defined as follows:

**SECTION 4: Reporting Information for the City of Birmingham Retirement and Relief System**

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<u>Number of Years of Service</u>	<u>Portion of Entitled Benefit</u>
5	50%
6	60
7	70
8	80
9	90
10 or more	100

This benefit is payable at the earlier of (a) the date that the deceased participant would have attained age 60 or (b) the date the deceased participant would have completed 20 years of service. In lieu of the above, for all participants, an annuity of 60% of salary is payable to the surviving spouse and 10% is payable to a minor child if death is service connected; the maximum for spouse and children is 75% and the maximum for children if no spouse is 60%. The minimum spouse benefit is \$320 per month.

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**Back-DROP:** An employee with 33 years of service or who is at least age 63 with 23 years of service may elect up to a 36-month Back-DROP. The employee’s monthly benefit will be calculated using service and final average salary as of the Back-DROP date and the employee will receive a lump sum equal to the number of months dropped back times the retirement benefit, accumulated with interest.

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**Participation:** All qualified employees of the Retirement and Relief System are required to participate.

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**Contributions:**

<i>Employees</i>	6.50% of compensation, increasing to 7.00% effective July 1, 2015
<i>City</i>	6.50% of compensation, increasing to 7.00% effective July 1, 2015

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**Changes in Plan Provisions:** There have been no changes in plan provisions since the last valuation.

**SECTION 5: GASB Information for the City of Birmingham Retirement and Relief System**

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**EXHIBIT 1**

**General Information – “Financial Statements”, Note Disclosures and Required Supplementary Information for a Single Employer Pension Plan**

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*Plan membership:* All qualified employees of the Retirement and Relief System. At June 30, 2014, pension plan membership consisted of the following:

Retirees or beneficiaries currently receiving benefits	2,897
Inactive members entitled to but not yet receiving benefits, including 277 future pensioners currently receiving benefits from the Supplemental System	303
Active employees	<u>3,889</u>
Total	7,089

The census data as of June 30, 2015 was not available at the time of this disclosure. It is assumed that the population remains constant.

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*Benefits provided:* See Section 4, Exhibit VI for a summary of plan provisions.

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**SECTION 5: GASB Information for the City of Birmingham Retirement and Relief System**

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**EXHIBIT 2**

**Net Pension Liability**

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The components of the net pension liability of the Retirement System at June 30, 2015 were as follows:

Total pension liability	\$1,574,826,589
Plan fiduciary net position	<u>1,026,521,284</u>
Association's net pension liability	548,305,305
Plan fiduciary net position as a percentage of the total pension liability	65.18%

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*Actuarial assumptions:* The total pension liability was determined by an actuarial valuation as of July 1, 2014, using the following actuarial assumptions, applied to all periods included in the measurement, with the results rolled forward to June 30, 2015:

Inflation	3.00%
Salary increases	3.00%, plus age-related salary scale based on participant group
Investment rate of return	7.00%, including inflation, net of pension plan investment expense

Healthy mortality rates were based on the sex-distinct RP-2000 Combined Healthy Mortality Table, set forward two years for both males and females. Disabled mortality rates were based on the sex-distinct RP-2000 Disabled Retiree Mortality Table, multiplied by 70%. The current tables were determined to contain a margin of 8% to anticipate future mortality improvement based on the review of mortality experience for the 2005-2010 period.

The actuarial assumptions used in the July 1, 2014 valuation were based on the results of an experience study for the period July 1, 2005 to June 30, 2010.

**SECTION 5: GASB Information for the City of Birmingham Retirement and Relief System**

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The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic real rates of return for each major asset class included in the System’s target asset allocation as of June 30, 2015 are summarized in the following table:

<b>Asset Class</b>	<b>Target Allocation</b>	<b>Long-Term Expected Real Rate of Return</b>
Equity	60%	6.7%
Fixed income	25%	1.6%
Hedge funds	<u>15%</u>	3.6%
<b>Total</b>	100%	

*Discount rate:* The blended discount rate used to measure the total pension liability is 5.24%. The projection of cash flows used to determine the discount rate assumed contributions will continue to be made at 6.50% of compensation from plan members and 6.50% of compensation from the City. For this purpose, only employer contributions that are intended to fund benefits of current plan members and their beneficiaries are included. Projected employer contributions that are intended to fund the service costs of future plan members and their beneficiaries are excluded, as are projected employee contributions from future plan members. Based on these assumptions, the System’s fiduciary net position was not projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on the System’s investments was applied to the first 26 periods of projected benefit payments and a 3.80% municipal bond rate was applied to all periods thereafter to determine the total pension liability. The 3.80% municipal bond rate was based on the S&P Municipal Bond 20-Year High Grade Rate Index as of June 25, 2015.



**SECTION 5: GASB Information for the City of Birmingham Retirement and Relief System**

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*Sensitivity of the net pension liability to changes in the discount rate:* The following presents the net pension liability of the System, calculated using the discount rate of 5.24%, as well as what the System's net pension liability would be if it were calculated using a discount rate that is one percentage point lower (4.24%) or one percentage point higher (6.24%) than the current rate:

	<b>1% Decrease (4.24%)</b>	<b>Current Discount Rate (5.24%)</b>	<b>1% Increase (6.24%)</b>
Net pension liability	\$745,357,055	\$548,305,305	\$382,732,627

**SECTION 5: GASB Information for the City of Birmingham Retirement and Relief System**

**EXHIBIT 3**

**Schedules of Changes in Retirement System's Net Pension Liability – Last Ten Fiscal Years**

	2015	2014	2013	2012	2011
<b>Total pension liability</b>					
Service cost	\$36,945,277	\$35,473,452	(Historical information prior to implementation of GASB 67/68 is not required.)		
Interest	80,340,821	78,078,837			
Change of benefit terms	0	0			
Differences between expected and actual experience	11,335,035	0			
Changes of assumptions	89,619,076	0			
Benefit payments, including refunds of employee contributions	<u>-76,439,094</u>	<u>-72,124,342</u>			
<b>Net change in total pension liability</b>	\$141,801,115	\$41,427,947			
<b>Total pension liability – beginning</b>	<u>\$1,433,025,474</u>	<u>1,391,597,527</u>			
<b>Total pension liability – ending (a)</b>	<u>\$1,574,826,589</u>	<u>\$1,433,025,474</u>			
<b>Plan fiduciary net position</b>					
Contributions – employer	\$14,464,552	\$14,039,103			
Contributions – employee	12,227,545	11,984,752			
Net investment income	43,686,697	143,936,432			
Benefit payments, including refunds of employee contributions	-76,439,094	-72,124,342			
Administrative expense	-178,807	-186,812			
Other	<u>0</u>	<u>0</u>			
<b>Net change in plan fiduciary net position</b>	-\$6,239,107	\$97,649,133			
<b>Plan fiduciary net position – beginning</b>	<u>1,032,760,391</u>	<u>935,111,258</u>			
<b>Plan fiduciary net position – ending (b)</b>	\$1,026,521,284	\$1,032,760,391			
<b>City's net pension liability – ending (a) – (b)</b>	<u>\$548,305,305</u>	<u>\$400,265,083</u>			
<b>Plan fiduciary net position as a percentage of the total pension liability</b>	65.18%	72.07%			
<b>Estimated covered-employee payroll</b>	\$188,116,077	\$184,380,800			
<b>City's net pension liability as percentage of covered employee payroll</b>	291.47%	217.09%			

**Notes to Schedule:**

*Benefit changes:* There have been no changes in benefit provisions since GASB 67 implementation.

*Change of assumptions:* Other than the change in blended discount rate, there have been no assumption changes since GASB 67 implementation.

**SECTION 5: GASB Information for the City of Birmingham Retirement and Relief System**

**EXHIBIT 4**

**Schedule of City of Birmingham’s Contributions to the Retirement and Relief System – Last Ten Fiscal Years**

<b>Year Ended June 30</b>	<b>Actuarially Determined Contribution*</b>	<b>Contributions in Relation to the Actuarially Determined Contribution</b>	<b>Contribution Deficiency (Excess)</b>	<b>Estimated Covered-Employee Payroll**</b>	<b>Contributions as a Percentage of Covered- Employee Payroll</b>
2006		(Historical information prior to implementation of GASB 67/68 is not required.)			
2007					
2008					
2009					
2010					
2011					
2012					
2013					
2014	\$30,553,712	\$14,039,103	\$16,514,609	\$184,380,800	7.61%
2015	30,398,187	14,464,552	15,933,635	188,116,077	7.69%

\* *The Actuarially Determined Contribution is equal to the total calculated contribution in the most recent actuarial valuation, minus the portion expected to be covered by employee contributions.*

\*\* *Payroll is estimated based on the actual employee contributions received and a 6.50% contribution rate. The City’s contributions as a percentage of covered-employee payroll are greater than 6.50% since they reflect contributions made by the City on behalf of retired members in the Firemen’s and Policemen’s Supplemental Pension Plan, as well as transfers from the Supplemental Plan.*

**SECTION 5: GASB Information for the City of Birmingham Retirement and Relief System**

**EXHIBIT 5**

**Notes to Required Supplementary Information**

<b>Valuation date</b>	Actuarially determined contribution is calculated using a July valuation date as of the beginning of the fiscal year in which contributions are reported
<b>Methods and used assumptions to determine contribution rates:</b>	
<b>Actuarial cost method</b>	Entry age
<b>Amortization method</b>	Level percent of payroll, using 3.0% annual increases
<b>Remaining amortization period</b>	Rolling 30 years
<b>Asset valuation method</b>	Market value of assets less unrecognized returns in each of the last five years. Unrecognized return is equal to the difference between the actual market return and the expected return on the market value, and is recognized over a five-year period, further adjusted, if necessary, to be within 20% of the market value.
<b>Actuarial assumptions:</b>	
Investment rate of return	7.00%, including inflation, net of pension plan investment expense
Inflation rate	3.00%
Projected salary increases	3.00%, plus age-related salary scale based on participant group
Retirement rates:	
<i>General Employees</i>	Rates vary from age 50 to 74. (Note: rates are decreased to 0% at 30 years and decreased by 75% when employee has 31-32 years of service. The rate is increased by 150% when the employee reaches 33 years of service.)
<i>Fire and Police</i>	Group specific rates based on years of service ranging from 20 to 35 years, with 100% retirement at age 65. See the July 1, 2014 actuarial valuation report for full detailed retirement rates.
Mortality:	
<i>Healthy</i>	RP-2000 Combined Healthy Mortality Table, set forward two years for both males and females.
<i>Disabled</i>	RP-2000 Disabled Retiree Mortality Table, multiplied by 70%.
<b>Other information:</b>	
	See Exhibit 3 for the history of changes to plan provisions and assumptions, if any.

**SECTION 5: GASB Information for the City of Birmingham Retirement and Relief System**

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**EXHIBIT 6**

**Summary of Net Pension Liability and Pension Expense Allocations**

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	<b>2015</b>			
	<b>Pay in July 1, 2014 Actuarial Valuation Data</b>	<b>Proportion of Net Pension Liability</b>	<b>Proportionate Share of Net Pension Liability</b>	<b>Proportion ate Share of Pension Expense</b>
<b>City of Birmingham (without Airport)</b>	\$185,800,414	97.13%	\$532,542,974	\$55,140,492
<b>Airport Authority</b>	<u>5,499,364</u>	<u>2.87%</u>	<u>15,762,331</u>	<u>1,632,061</u>
<b>Total</b>	\$191,299,778	100.00%	\$548,305,305	\$56,772,553

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**SECTION 5: GASB Information for the City of Birmingham Retirement and Relief System**

**EXHIBIT 7**

**GASB 68 information Drafted for Inclusion in a June 30, 2015 CAFR for the City of Birmingham**

*Net pension liability.* The City of Birmingham is allocated a proportional share of 97.13% of the net pension liability of the City of Birmingham Retirement and Relief System, with the allocation based on July 1, 2014 valuation pay. This basis is intended to measure the proportion of each employer’s long-term funding requirements. The City of Birmingham’s allocated share of the net pension liability is \$532,542,974.

*Sensitivity of the net pension liability to changes in the discount rate.* The following presents the City of Birmingham’s proportional share of the net pension liability of the Birmingham Retirement and Relief System, calculated using the discount rate of 5.24%, as well as what the proportional share of the net pension liability would be if it were calculated using a discount rate that is one percentage-point lower (4.24%) or one percentage-point higher (6.24%) than the current rate:

	<b>1% Decrease (4.24%)</b>	<b>Current Discount (5.24%)</b>	<b>1% Increase (6.24%)</b>
City of Birmingham’s proportional share of net pension liability	\$723,930,006	\$532,542,974	\$371,730,074

For the year ended June 30, 2015, the City of Birmingham’s recognized pension expense is \$55,140,492. At June 30, 2015, the City reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	<b>Deferred Outflows of Resources</b>	<b>Deferred Inflows of Resources</b>
Differences between expected and actual experience	\$9,174,319	--
Changes of assumptions	72,535,637	--
Net difference between projected and actual earnings on pension plan investments	<u>20,982,743</u>	--
Total	\$102,692,699	--

**SECTION 5: GASB Information for the City of Birmingham Retirement and Relief System**

Amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense as follows:

Year Ended	Recognition of deferred outflows/(inflows)
September 30, 2016	\$21,587,677
September 30, 2017	21,587,677
September 30, 2018	21,587,677
September 30, 2019	21,587,676
September 30, 2020	16,341,992
Thereafter	- -

**Schedules of Changes in City of Birmingham’s Proportional Share of Net Pension Liability – Last Ten Fiscal Years\***

	2015	2014	2013	2012	2011
<b>Proportional share percentage</b>	97.13%				
<b>Net pension liability</b>	\$532,542,974				
<b>Estimated covered-employee payroll</b>	182,708,236				
<b>Net pension liability as percentage of covered employee payroll</b>	291.47%				

*\*All information is on a measurement year basis.*

SECTION 5: GASB Information for the City of Birmingham Retirement and Relief System

EXHIBIT 8

Pension Expense and Deferred Outflows/Inflows of Resources Related to Pensions – City of Birmingham

<u>Projected recognition of deferred outflows/(inflows)</u>					Deferred Outflows/(Inflows) Recognized in Future Years				
	Year Established	Initial Balance	Amount Recognized During FYE June 30, 2015	Outstanding Balance at June 30, 2015	FYE June 30, 2016	FYE June 30, 2017	FYE June 30, 2018	FYE June 30, 2019	FYE June 30, 2020
<b>Fiscal Year Outflows</b>									
Liability loss	2015	\$11,009,183	\$1,834,864	\$9,174,319	\$1,834,864	\$1,834,864	\$1,834,864	\$1,834,864	\$1,834,863
Investment loss	2015	26,228,429	5,245,686	20,982,743	5,245,686	5,245,686	5,245,686	5,245,685	--
Assumption change	2015	<u>87,042,764</u>	<u>14,507,127</u>	<u>72,535,637</u>	<u>14,507,127</u>	<u>14,507,127</u>	<u>14,507,127</u>	<u>14,507,127</u>	<u>14,507,129</u>
<b>Total Outflows</b>		<b>\$124,280,376</b>	<b>\$21,587,677</b>	<b>\$102,692,699</b>	<b>\$21,587,677</b>	<b>\$21,587,677</b>	<b>\$21,587,677</b>	<b>\$21,587,676</b>	<b>\$16,341,992</b>
<b>Fiscal Year Inflows</b>									
	--	--	--	--	--	--	--	--	--
<b>Total</b>		<b>\$124,280,376</b>	<b>\$21,587,677</b>	<b>\$102,692,699</b>	<b>\$21,587,677</b>	<b>\$21,587,677</b>	<b>\$21,587,677</b>	<b>\$21,587,676</b>	<b>\$16,341,992</b>



**SECTION 5: GASB Information for the City of Birmingham Retirement and Relief System**

**EXHIBIT 9**

**GASB 68 information Drafted for Inclusion in a June 30, 2015 CAFR for City of Birmingham Airport Authority**

*Net pension liability.* The Airport Authority is allocated a proportional share of 2.87% of the net pension liability of the City Birmingham Retirement and Relief System, with the allocation based on July 1, 2014 valuation pay. This basis is intended to measure the proportion of each employer’s long-term funding requirements. The Airport Authority’s allocated share of the net pension liability is \$15,762,331.

*Sensitivity of the net pension liability to changes in the discount rate.* The following presents the Airport Authority’s proportional share of the net pension liability of the Birmingham Retirement and Relief System, calculated using the discount rate of 5.24%, as well as what the proportional share of the net pension liability would be if it were calculated using a discount rate that is one percentage-point lower (4.24%) or one percentage-point higher (6.24%) than the current rate:

	<b>1% Decrease (4.24%)</b>	<b>Current Discount (5.24%)</b>	<b>1% Increase (6.24%)</b>
City of Birmingham’s proportional share of net pension liability	\$21,427,049	\$15,762,331	\$11,002,553

For the year ended June 30, 2015, the Airport Authority’s recognized pension expense is \$1,632,061. At June 30, 2015, the Airport Authority reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	<b>Deferred Outflows of Resources</b>	<b>Deferred Inflows of Resources</b>
Differences between expected and actual experience	\$271,543	--
Changes of assumptions	2,146,927	--
Net difference between projected and actual earnings on pension plan investments	<u>621,052</u>	--
Total	\$3,039,522	--

**SECTION 5: GASB Information for the City of Birmingham Retirement and Relief System**

Amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense as follows:

<b>Year Ended</b>	<b>Recognition of deferred outflows/(inflows)</b>
September 30, 2016	\$638,957
September 30, 2017	638,957
September 30, 2018	638,957
September 30, 2019	638,957
September 30, 2020	483,694
Thereafter	--

**Schedules of Changes in City of Birmingham Airport Authority’s Proportional Share of Net Pension Liability – Last Ten Fiscal Years\***

	<b>2015</b>	<b>2014</b>	<b>2013</b>	<b>2012</b>	<b>2011</b>
<b>Proportional share percentage</b>	2.87%				
<b>Net pension liability</b>	\$15,762,331				
<b>Estimated covered-employee payroll</b>	5,407,841				
<b>Net pension liability as percentage of covered employee payroll</b>	291.47%				

*\*All information is on a measurement year basis.*

SECTION 5: GASB Information for the City of Birmingham Retirement and Relief System

EXHIBIT 10

Pension Expense and Deferred Outflows/Inflows of Resources Related to Pensions – Airport Authority

<u>Projected recognition of deferred outflows/(inflows)</u>					Deferred Outflows/(Inflows) Recognized in Future Years				
	Year Established	Initial Balance	Amount Recognized During FYE June 30, 2015	Outstanding Balance at June 30, 2015	FYE June 30, 2016	FYE June 30, 2017	FYE June 30, 2018	FYE June 30, 2019	FYE June 30, 2020
<b>Fiscal Year Outflows</b>									
Liability loss	2015	\$325,852	\$54,309	\$271,543	\$54,309	\$54,309	\$54,309	\$54,309	\$54,307
Investment loss	2015	776,315	155,263	621,052	155,263	155,263	155,263	155,263	--
Assumption change	2015	<u>2,576,312</u>	<u>429,385</u>	<u>2,146,927</u>	<u>429,385</u>	<u>429,385</u>	<u>429,385</u>	<u>429,385</u>	<u>\$429,387</u>
<b>Total Outflows</b>		<b>\$3,678,439</b>	<b>\$638,957</b>	<b>\$3,039,522</b>	<b>\$638,957</b>	<b>\$638,957</b>	<b>\$638,957</b>	<b>\$638,957</b>	<b>\$483,694</b>
<b>Fiscal Year Inflows</b>									
		--	--	--	--	--	--	--	--
<b>Total</b>		<b>\$3,678,479</b>	<b>\$638,957</b>	<b>\$3,039,522</b>	<b>\$638,957</b>	<b>\$638,957</b>	<b>\$638,957</b>	<b>\$638,957</b>	<b>\$483,694</b>

**SECTION 5: GASB Information for the City of Birmingham Retirement and Relief System**

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**EXHIBIT 11**

**Detailed Development of Pension Expense for the Year Ended June 30, 2015**

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Service cost	\$36,945,277	
Interest on Total Pension Liability	80,340,821	
Employee contributions	-12,227,545	
Administrative expenses	178,807	
Expected return on assets	-70,691,441	
Expensed portion of current year period differences between expected and actual experience in Total Pension Liability	1,889,173	
Expensed portion of current year period assumption changes	14,936,512	
Current year plan changes	--	
Expensed portion of current year period differences between projected and actual investment earnings	5,400,949	
Current year recognition of deferred inflows and outflows established in prior years	--	
Total expense		\$56,772,553

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